

# The Study of View Maintenance on Semi-structured Data

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## ABSTRACT

As the Internet is becoming more important, semi-structured data is applied for information exchange and used. To exceed the query processes, views over the semi-structured data can be materialized and stored. However, unlike the relational database that has a fixed schema, the semi-structured data normally are not bound to a fixed structure. Thus, maintaining the materialized views becomes more difficult in semi-structured database. To cope with this difficulty, in our research, we propose a method with transform DTD into relational schema and transform definitions of semi-structured query into definitions of relational query that determines if a certain change to the source data will affect the materialized views. If the change does affect the views, then an incremental update method is employed to update the views. Otherwise, no actions are needed. The result of our research shows that, without storing a large amount of metadata, our system can quickly decide if a materialized view should be updated.

Keywords : Semi-structured Data ; Document Type Definition ; Materialized Views

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